## ABSTRACT

A method and system for compressing and displaying a digital ink trace. Raw ink data is smoothed, and sharp points

5   of the smoothed line are found. Curve-fitting is then used to generate a mathematical expression that defines the line segments between adjacent sharp points. The ink trace then is represented by a backbone spline that includes the sharp points and the mathematical expressions for the line segments.

10  Thickness information, such as pressure or acceleration information, is combined with the backbone spline to provide a compressed ink file that represents a contour curve of the original ink trace. A display module uses an algorithm to separate the contour curve into a sequence of straight lines.

15  A set of pixels is then generated for the display of each straight line using a novel antialiasing method. The pixels at the ends of adjacent straight lines are aligned using a weighting algorithm.

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